

Life-Expectancy Risk and Pensions: Who Bears the Burden?

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Abstract

Risk occurs in pensions because they are long-term contracts. These contracts can involve up to four sets of actors: individuals, governments, employers and financial-services providers. Uncertainty about the future complicates planning for all these actors: if things turn out better than expected, who will reap the gains? If things turn out worse, who will bear the cost? No one wants to bear risk, but, in most cases, someone has to. Risks in pension systems have, in the past, been poorly measured or even just ignored. This paper - the first of several that will examine how different kinds of uncertainty affect pensions - looks at life-expectancy risk. If life expectancy continues to grow in the future, how much of the cost of this will be borne by individual retirees in the form of reduced benefits or later retirement? The innovation of this paper is the focus on *uncertainty* in life-expectancy projections, not on the well known effects of forecast mortality improvements on pension-system finances.

Two-thirds of pension reforms in OECD countries in the last 15 years contain measures that will *automatically* link future pensions to changes in life expectancy. This quiet revolution in pension policy means that the financial costs of longer lives will be shared between generations subject to a rule, rather than spreading the burden through potentially divisive political battles as happened in the past. As a result, nearly half of OECD countries - 13 out of 30 - now have an automatic link between pensions and life expectancy in their retirement-income systems, compared with only one country (Denmark) a decade ago. Indeed, the spread of this policy has a strong claim as the major innovation in pension policy in recent years. The link to life expectancy has been achieved in four different ways:

Seven countries - Australia, Hungary, Norway, Poland, Mexico, the Slovak Republic and Sweden have introduced mandatory defined-contribution plans.

Italy, Poland and Sweden have substituted notional accounts for traditional, defined-benefit public schemes. Notional accounts are designed to mimic some of the features of defined-contribution plans: in particular, pension entitlements are calculated in a similar way to annuities.

Some countries have retained defined-benefit public schemes while introducing a link between life expectancy and pensions. Finland, Germany and Portugal will adjust benefit levels with life expectancy.

Two countries will link qualifying conditions for pensions to life expectancy: the pension age in Denmark and the number of years of contributions needed for a full pension in France.

This paper projects life expectancy 50 years into the future. The central forecast is for additional life expectancy for men at age 65 (the typical standard pension age) to increase from 15.1 to 18.5 years. For women, the projected growth is from 18.7 to 22.2 years. However, these forecasts are uncertain. In the best 5% of cases, life expectancy for men is projected to be 20.1 years or more, compared with 17.1 years or less in the worst 5% of cases. The degree of uncertainty for women is similar to that for men.

These calculations underpin an analysis of how pension entitlements vary under the different scenarios for life expectancy and then on how life-expectancy risk is shared between individual retirees and pension providers (and, ultimately, contributors, taxpayers *etc.*)

The results show great diversity among the countries with links between life expectancy and pensions. The small mandatory contribution in Norway means only 10% of the financial cost of longer lives is borne by retirees. In Australia, this proportion is about 30% because the means-tested public pension limits the impact of longer lives on pension entitlements. The public, earnings-related pension in Hungary, which is not linked to life expectancy, will continue to provide the majority of retirement incomes.

At the other end of the spectrum, 100% or more of life-expectancy risk is borne by individual retirees in Finland, Poland and Portugal because the most important parts of the pension system are all linked to life expectancy.

It is hard to see why people approaching retirement should not bear at least some of the cost of their generation living longer than previous generations: living longer is in itself desirable. The optimum amount of life-expectancy risk that individual retirees should bear is therefore not zero. However, each individual has a lifecycle that includes periods as a contributor and as a beneficiary. There is a trade-off: greater certainty over retirement benefits versus greater certainty over the amount of contributions or taxes paid when working. Together, these factors suggest that individual retirees should bear some but not all life-expectancy risk.

The paper concludes by analysing which of the 17 OECD countries without a link to life expectancy in their pension systems might consider adopting such a policy and what lessons they might learn from the experience of countries that have already implemented it.